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**Aboriginal population change
in remote Australia, 1986-91:
data issues**

J. Taylor

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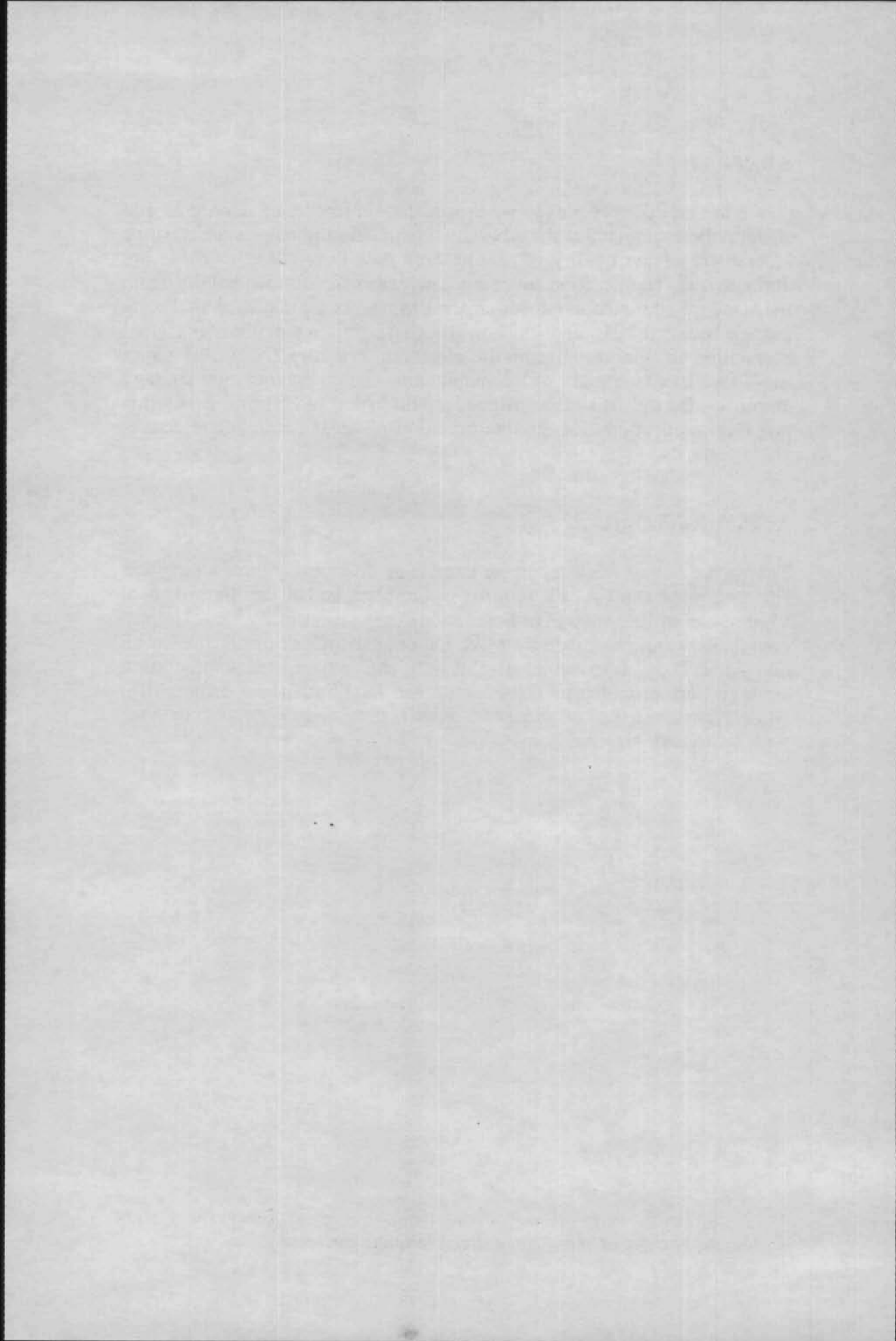
Jon Altman
Director, CAEPR
Australian National University

ABSTRACT

Given the crucial role played by census data in informing economic and social policies directed at the Aboriginal population in remote areas, some assessment of the quality of remote area data is required as these are derived from enumeration procedures which differ fundamentally from the standard approach employed in the census. As a prelude to analysing change between 1986 and 1991 in the characteristics of the Aboriginal population in remote parts of the Northern Territory (NT), this paper provides a brief summary of the remote area census enumeration strategy employed by the Australian Bureau of Statistics (ABS) and highlights possible implications for the interpretation of census counts and census characteristics.

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Previous analysis of 1986 Census data has examined the role of remote location as an explanatory variable in the determination of Aboriginal economic status (Taylor 1991).¹ To date, this work has developed along three lines. First, to assert the importance of analysing the Aboriginal population in a spatial context. Second, to demonstrate how census statistics may be manipulated to isolate meaningful spatial sub-categories of the Aboriginal population. Third, to consider the extent to which extreme remote location for a particular segment of the Aboriginal population, the population at outstations, is associated with distinct social and economic characteristics. The basic conclusion drawn from the analysis of 1986 data was that the proportion of the Aboriginal population resident in remote areas is increasing and that its geographic isolation is reflected in lower economic status, but not in distinct demographic structure.

A number of issues flow from this. First, because population increase in remote areas has invariably derived from new settlement (or resettlement) this has generated substantial new demand for a range of costly infrastructural developments creating a public policy issue somewhat out of proportion to the actual number of clients involved. Second, the normal demographic distribution evident for the population resident in remote areas implies that economic and social policy responses are required across the full range of target groups, such as infants, school age children, youth and school leavers, working-age males and females, and the aged. In the policy context of striving for Aboriginal statistical equality with all Australians, the urgency of this task is given added impetus by manifest lower socioeconomic status.

One consequence of this growing area of policy concern has been to highlight a data vacuum in respect of remote area populations and a concomitant need, not just for more data, but for data that are accurate and culturally appropriate. The scale of this requirement has increased in line with the expansion of population movement to outstations over the past two decades. Thus, beginning in the late 1970s, the Department of Aboriginal Affairs (DAA) sought to include basic information on outstations as part of its community profile database. While this has formed the basis for some socioeconomic analysis (Young 1982), the data obtained were restricted in both range and quality and, in any case, the series was discontinued in 1987. While service delivery agencies, such as outstation resource centres and government departments, each have some statistical notion of their client base in remote areas, no centralised mechanism for coordinating such data exists, to say nothing of the discrepancies that occur between data sets. Indeed, leaving aside the actual characteristics of people, one of the more remarkable features of the policy environment in regard to remote area populations is the lack of any agreed consensus on precisely what places exist to be serviced, where

they are located and who the clients are. As for more detailed demographic information, it is not surprising that the five-yearly census continues to provide the only comprehensive source of data on the characteristics of people resident in remote areas, creating a higher level of statistical dependency on a single source than exists in respect of any other section of the Australian population.

Given the crucial role played by census data in informing economic and social policies directed at remote areas, it is essential to make some assessment of the quality of remote area data as these are derived from enumeration procedures which differ fundamentally from the standard approach employed in the census. As a prelude to analysing change between 1986 and 1991 in the characteristics of the Aboriginal population in remote parts of the Northern Territory (NT), this paper provides a brief summary of the remote area census enumeration strategy employed by the Australian Bureau of Statistics (ABS) and highlights possible implications for the interpretation of census counts and census characteristics.

Remote area population - conflicting numbers

In recent years, there has been growing recognition among Aboriginal affairs policy-makers of spatial diversity in the social and economic circumstances of Aboriginal people. Such diversity is not inherent in the people themselves, but derives from the differential impact of European settlement in the various regions of Australia (Altman and Sanders 1991). To some extent, variable lifestyles have also been facilitated by government intervention as, for example, in the case of financial grants to Aborigines wishing to settle in remote localities (Altman and Taylor 1989: 23). The rapid growth of such settlement in the face of inadequate information resulted in the establishment of an Inquiry by the House of Representatives Standing Committee on Aboriginal Affairs to quantify what was regarded as a significant new development with wide-ranging policy implications (Blanchard 1987). This Inquiry found that the majority of Aboriginal people in remote areas were resident in outstation communities which it defined as small (average size 30 people), relatively permanent decentralised communities consisting of closely related individuals that have been established by Aboriginal people with a strong traditional orientation. Through consultation with government departments and Aboriginal community organisations, it was estimated that approximately 588 such communities existed around Australia in 1986, with an estimated total population of around 9,500 (Blanchard 1987: 302). Using a similar estimation technique, Bliss (1987) identified 609 outstations with a total population of 10,250. These localities are found entirely in remote regions of Australia outside of New South

Wales, Victoria and Tasmania, although by far the majority are in remote parts of the Northern Territory.

The lack of any definitive listing of remote localities makes it difficult to monitor this population redistribution. For example, in preparation for the 1991 Census, the ABS identified a total of 1,306 localities in the NT to be considered for special remote area enumeration procedures. This list was compiled through extensive consultations with Aboriginal community organisations and Federal and NT government departments responsible for servicing remote areas. Approximately half of these localities were classified as outstations, the remainder being Aboriginal towns, town camps, and pastoral settlements. Many of those classified as outstations were, however, only seasonal or temporary camps and the list is thus properly interpreted as comprising all places where individuals might conceivably have been located at census time.

In contrast, the Northern Territory Department of Lands and Housing maintains a database of Aboriginal communities which, in 1991, listed only 458 localities, most of which were outstations. Likewise, the Aboriginal and Torres Strait Islander Commission (ATSIC) Housing and Community Infrastructure Needs Survey conducted throughout the Northern Territory in 1992, counted only 371 outstation localities. Part of the reason for discrepancies in the total number of localities listed lies in the different criteria used to define an outstation. The last two figures, for example, refer only to places which have some infrastructure, whereas the census listing is far less restrictive.

Following the census lead, it would not be unreasonable to suggest that there are currently some 650 localities in the NT which are inhabited with varying degrees of permanency and have populations of less than 100 Aboriginal persons. Most of these would be described as outstations, while the rest comprise clusters of Aboriginal people resident in areas excised from pastoral leases or living under other forms of pastoral tenure. Not all of these localities would be occupied at any given time, partly because of a lack of infrastructure and partly due to population mobility. The average size of such localities has been variously estimated to be between 16 and 30 persons (Peterson 1985: 93; Blanchard 1987), although pastoral excision communities tend to be somewhat larger. For example, the NT Department of Lands and Housing estimates the average population size of pastoral excision communities to be 52 persons, although this conceals a wide variation with some, such as Lake Nash, having populations above 200 persons.

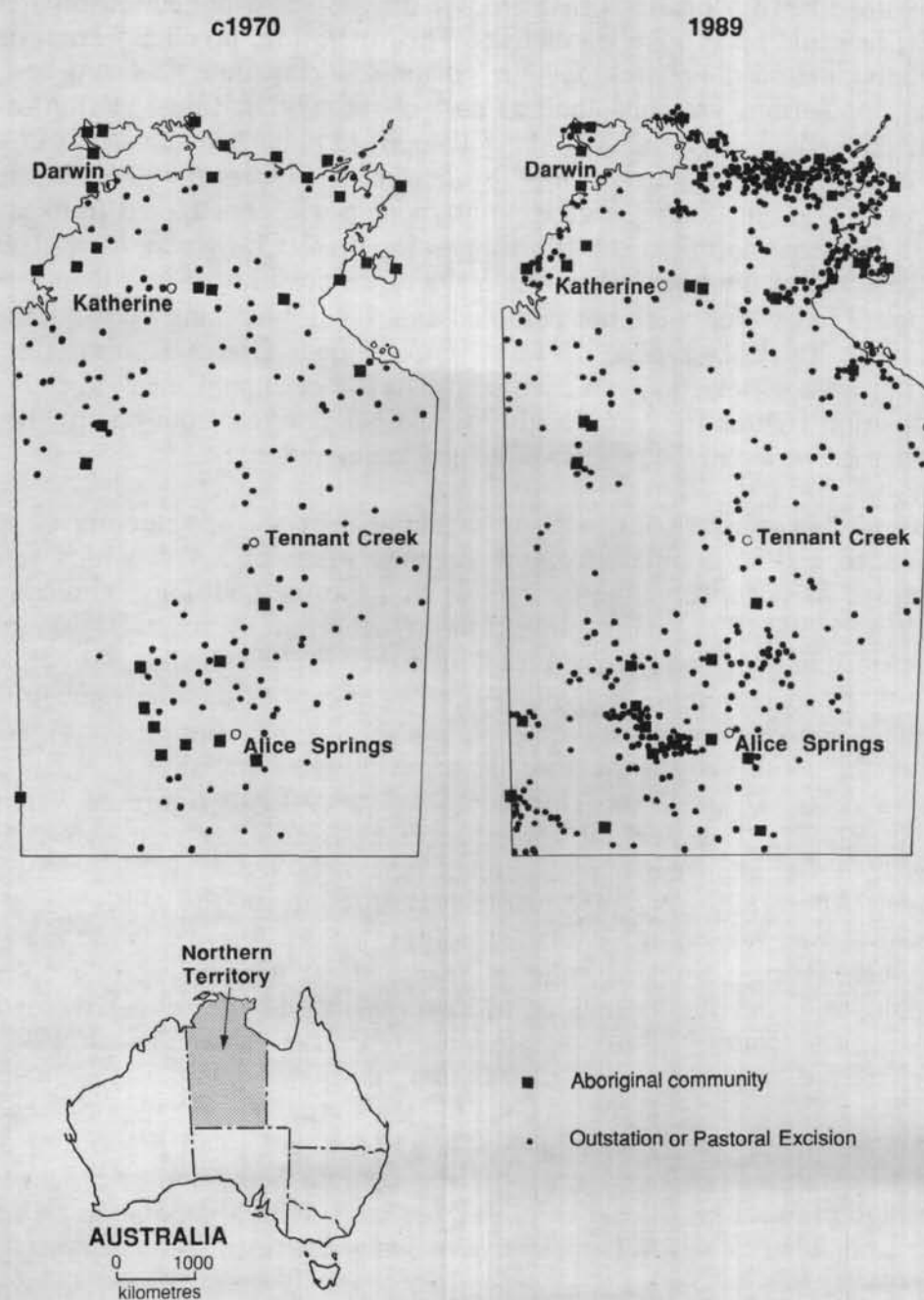
Estimating the 'population' of such localities is an extremely difficult task and ultimately presents an exercise in demographic semantics due to high levels of population mobility between, for example, outstations, seasonal

camps and associated Aboriginal towns. The situation is made no easier by a general lack of hard data relating to population movements. In this regard, the census is of limited value as it only records movement between Statistical Local Areas (SLAs) and, in any case, problems are likely to arise when asking outstation residents to record their usual place of residence one and five years ago.²

The few case studies of mobility that do exist merely serve to underline the difficulties of attaching individuals to particular places at any given time, even in situations where the fieldworker is locally resident. Altman (1987), for example, in describing the settlement pattern of the population of Momega outstation in north-central Arnhem Land, refers to an 'immediate community', which incorporates Momega itself and three adjoining outstations, and a 'wider community', comprising a section of Maningrida town and seven other distant outstations. In all, this settlement network circumscribes an area of some 5,600 square kilometres within which the population of just one outstation is inter-mixed with several other groups in a variety of localities. Altman (1987: 25) also notes that population mobility and dispersion of band groups is highest in the mid-dry season which coincides with the timing of the census. This involves a complex of movements by individuals, households and household clusters and is compounded by a tendency for seemingly established residential arrangements to fragment over time and form new outstations. This process is driven partly by population increase, with the critical size of outstations determined by a range of contingent social, economic and political considerations. A similar dynamic between social and settlement networks over much wider areas are described by Cane and Stanley (1985) and Young and Doohan (1989) for the Aboriginal population in Central Australia. Needless to say, these patterns of spatial interaction confound the problem of assigning populations to particular localities in a situation where people live as much in an 'area' as a 'place'.

Notwithstanding the above, it is clear that a significant shift in settlement pattern and structure has occurred in recent years with a trend towards increasing dispersion (Taylor 1989: 14). This is well illustrated in Figure 1 which compares the distribution of known Aboriginal localities in the early 1970s with those identified by the NT Department of Lands in 1989. The tendency towards outstation development is widespread and is clearly associated with areas in which Aboriginal title to land has been granted. This includes the coastal and inland areas of Arnhem Land, the Daly and Finnis Rivers areas, parts of the Gulf country and the desert west of Alice Springs. As a consequence, increasing numbers of Aboriginal people in the NT have been spending all or part of their time in remote localities over the past two decades.

Figure 1. Distribution of Aboriginal localities in the Northern Territory, 1970 and 1989.



Source: ABS (1990: 12).

The 1991 outstation census sub-file

Given the nature of ABS census geography, population totals for individual outstations are impossible to establish, as the census geography does not identify localities that are not themselves a collection district (CD) or made up of a series of CDs. This, therefore, precludes analysis of individual outstations as they are too small to constitute a CD. At best, such populations are subsumed as part of the 'Other Rural' section-of-state data which may also include well-serviced population clusters of up to 200 persons. In an attempt to derive an approximation of the population at outstations, a geographic module was constructed from the 1991 Census Aboriginal sub-file comprising those CDs where more than 50 per cent of the population was resident in localities of less than 100 persons, and which were not regarded as a local governing body by the Northern Territory Office of Local Government Grants Commission. This process of selection was assisted by the use of unpublished indicative population figures for each locality in the NT derived from community listings drawn up in the process of census enumeration.

A similar exercise, using slightly different criteria for selecting CDs, produced a 1986 population figure for outstations of 5,474, which was regarded as a conservative estimate given the methodology employed (Taylor 1991). The main concentration occurred in coastal areas of Arnhem Land which accounted for 43 per cent of the sub-file total, while a further concentration, accounting for 27 per cent of the total, occurred in the desert country to the west of Alice Springs. Revision of this figure using the 1991 geographic module produces an outstation population figure of 6,341 in 1986. This compares to a 1991 figure of 7,121 representing an inter-censal annual increase of 2.4 per cent, which is slightly lower than the overall annual rate of increase of 2.9 per cent among Aborigines generally in the NT. In contrast, the 1992 ATSIC Housing and Community Infrastructure Needs Survey, which was conducted only eight months after the 1991 Census, produced a population count for outstations of 8,565. While this is suggestive of a census undercount, this figure probably represents what Taylor (1990) has referred to as a 'potential population', that is, a maximum estimate, assuming all localities were occupied by their usually resident population simultaneously. One pointer in this direction is the small proportion of survey localities (13.3 per cent) that recorded no population. Another is the high proportion of localities (60.2 per cent) with a population figure ending in '0' or '5' which is indicative of systematic estimation.

In order to uncover any regional variations in remote area population change between 1986 and 1991, the Northern Territory was divided into three regions: Top End, comprising the ATSIC regional council areas of Tiwi Islands, Yilli/Rreung, Jabiru and Miwatj; Middle, comprising Daly River, Victoria River, Mulgun and Yapakurlangu; and Central,

comprising Papunya, Arltarlpilta, Alice Springs and Imphyara. Most growth occurred in the Top End region where the population enumerated at outstations increased from 2,384 to 2,967, an annual increase of 4.9 per cent. In the predominantly pastoral Middle region a similar growth rate was recorded, with numbers rising from 1,635 to 2,028. In the Central region, however, fewer people were recorded at outstations in 1991 (2,126 compared to 2,322 in 1986) resulting in an annual decline in population of 1.7 per cent. Whether these divergent trends reflect actual redistribution, or are an artefact of the census data and the manner in which it was collected, is a moot point.

Remote area enumeration strategy

In line with the evident increase in numbers and growing dispersion of population in remote areas, the ABS has over the past decade assigned increasing resources to ensuring comprehensive and appropriate census coverage (Loveday and Wade-Marshall 1985). The impetus for special enumeration procedures derived originally from the high illiteracy levels observed in areas where traditional Aboriginal culture predominates (ABS 1989: 3). In response, the tactic has been to collect census data for designated Aboriginal localities by interview, using mostly Aboriginal enumerators, rather than by the standard method of self-enumeration.

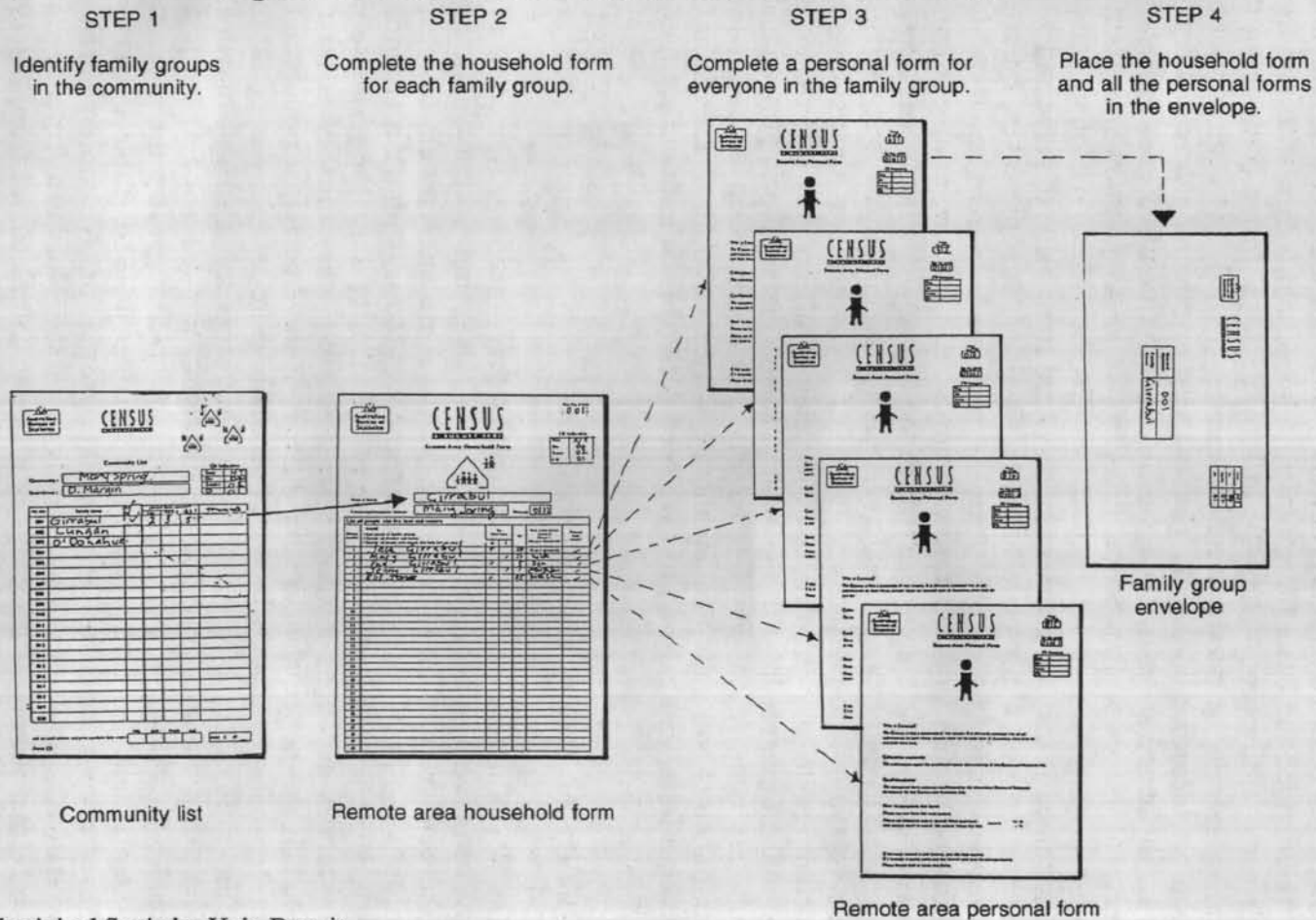
In the 1991 Census, this remote area strategy was applied in all non-urban centres and town camps of the Northern Territory, as well as in all similar localities in Western Australia, predominantly north of Perth. In South Australia, Aboriginal people in the Pitjantjatjara lands, Maralinga lands, and Ceduna, Yalata, Coober Pedy and Oodnadatta were enumerated in this way, while in Queensland all non-urban centres in the Torres Strait, Cape York, and the Gulf country were included, as well as Aboriginal hostels in Mt. Isa and discrete Aboriginal communities along the east coast such as Yarrabah, Palm Island and Cherbourg.³ An exact figure of those enumerated in this way is difficult to establish, as some town camp populations, for example, do not fall into discrete urban CDs. However, using 1991 Census figures, it can be determined that approximately 70 per cent of the Aboriginal population in the Northern Territory, around 30 per cent of Aboriginal people in Western Australia, some 20 per cent of those in South Australia and up to 30 per cent in Queensland were enumerated by special procedures. For Australia as a whole, the figure is in the region of one-quarter of the total, although clearly, for large regions of the country, it represents the full enumeration. Given this scale of coverage, it is essential that the broad features of this remote area census enumeration are understood as there are a number of ways in which it may possibly impact on the quality and comparability of data collected.

The key operational term underpinning the remote area enumeration in 1991 was 'flexibility'. This basically provided for Census Field Officers (CFOs) and the Aboriginal assistants they recruited to determine for themselves the most effective way of obtaining information as each case dictated. Therefore, the enumeration strategy had a clear structure centred around the compilation of family lists for each identified locality and the use of community coordinators and assistant collectors located in each of the main Aboriginal townships. Community coordinators were also responsible for enumerating outlying localities, notably outstations, within their census jurisdiction. The framework, then, for the enumeration was the remote area service network.

For reasons of practicality, two of the most fundamental features of standard census procedure in Australia were effectively overridden by the remote area strategy. The first of these concerns is the simultaneity of the census count. In the standard enumeration, the self-enumeration count occurs on a single day - census day. By contrast, while referring to the same census date of August 6th, the process of remote area enumeration in 1991 began up to four weeks before census day and continued, in a number of cases, for some time after. The second departure from normal enumeration procedures concerns the nature of the count. The Australian census is, in the first instance, a place of enumeration (*de facto*) count. In remote areas, however, the count was conducted on both a *de facto* and a *de jure* basis, with individuals recorded in a manner dictated by expediency. Unfortunately, no record exists of what applied where. The cause of this variation may be traced to the three-staged strategy for enumeration shown in Figure 2.

The first task of community coordinators (step 1), was to compile accurate lists of all family groups currently (usually) resident in their own locality, as well as all those located in other localities (mostly outstations) within their census jurisdiction. This process commenced as soon as CFOs could organise and train an appropriate individual in each centre to do the job. With only four CFOs for the whole of the Northern Territory, this inevitably introduced a time lag in the compilation of community lists, with potential (and unknown) consequences for their accuracy in terms of possible overlap and omission, given the high level of intra-regional mobility experienced in such areas. In some instances, fairly drastic measures were called for. In Yuendumu, for example, census day was brought forward by two weeks because the real date coincided with the Yuendumu sports festival which, as previously noted by Young and Doohan (1989: 192-7), stimulates substantial population mobility across Central Australia. Cross-checking of community lists in Alice Springs town camps was one tactic adopted in an attempt to ensure that all individuals were counted according to plan, although the precise ultimate impact of such an event on the final count remains unknown.

Figure 2. Remote area census enumeration strategy.



Source: Aboriginal Statistics Unit, Darwin.

The actual method of compiling lists also varied according to who was involved, but it is understood that this was generally done via council offices and other community networks. Once constructed, the community lists provided the basis for completing household forms, with one form for each family group (step 2). In turn, personal forms comprising the individual census details were completed (step 3) for each household member identified in step 2. The last step of obtaining personal details was, in theory at least, conducted by locally recruited enumerators by personal interview. In practice, it is difficult to say just how much actual interviewing took place and in which localities. All that can be determined is that the actual practice varied from place to place and what eventuated was a mix of information obtained, in some cases, by direct interview and, in others, from second-hand sources such as key informants and administrative records. As for the enumeration at outstations, in some areas, such as in the Pitjantjatjara lands, enumerators travelled to outlying localities, whereas for the most part it appears that the relevant information was gathered by whatever means possible including two-way radio contact from council offices, key informants and administrative records. In the final analysis, the appropriate mechanism for data acquisition was left largely to the discretion of community coordinators and individual enumerators with the result that, even at CD level, information is likely to have been derived from a mix of sources.

Quality of census characteristics

The flexibility allowed in census enumeration procedures was one way of ensuring comprehensive collection of data but it may also have compromised accuracy. Since the onus was on interviewers to retrieve information for all persons on the household forms, with the assistance of key informants and administrative records if necessary, the response rate for census questions in remote areas in 1991 was probably at least as good, if not better, than among the rest of the Aboriginal population in the Northern Territory which was generally enumerated by standard self-enumeration. Response rates for remote areas are also not drastically worse than those recorded for the Aboriginal population of Australia as a whole. This is supported by observations made regarding the proportion of 'not stated' for a range of census variables in 1986. Table 1 compares these proportions for Aboriginal people at Northern Territory outstations, those resident elsewhere in the Northern Territory and Aboriginal people in Australia as a whole. Initial output from the 1991 Census Aboriginal sub-file indicates that the pattern revealed in Table 1 has persisted with non-response rates at outstations often below those reported for urban areas.

Table 1. Proportion of selected 1986 Census variables 'not stated' or 'inadequately described' for Aboriginal people at Northern Territory outstations, Northern Territory remainder and total Australia.

Census variable	Per cent 'not stated'		
	Outstations	NT remainder	Australia
School attendance	17.1	22.4	11.1
Proficiency in English	5.4	5.7	0.3
Labour force status	7.2	9.6	5.1
Industry sector	7.6	8.4	6.9
Industry division	6.1	7.2	6.6
Occupation	11.9	9.7	6.0
Hours worked	8.1	8.0	6.1
Individual income	12.4	16.0	12.8
Household income	19.8	22.9	17.6
Structure of dwelling	6.2	6.3	4.0
Nature of occupancy	0.4	0.1	0.5

Source: Taylor (1991); ABS (1991).

Whether the quality of the data is any better for being more complete is a question that is unlikely to be resolved. For example, are data on school attendance, labour force status, hours worked or individual income necessarily more (or less) accurate if a sizeable proportion are obtained from administrative records or from key informants, as was the case for many outstations? In the case of age data, it is likely that these are more accurate than data gathered by standard self-enumeration if they were compiled from such sources as health records. However, given the absence of detailed field reports on the precise mechanisms of remote area enumeration such a question remains open to speculation, although certain observations can be advanced. For example, it seems that despite the intentions of census enumerators, data on income from the sale of arts and crafts, as well as royalties, were generally not gathered. Questions also surround the recording of employment data. For example, how was it determined by proxy whether an individual was engaged in a paid job in the last week or not, particularly in the context of part-time employment arrangements such as under the Community Development Employment Projects (CDEP) scheme? Similar uncertainties arise in respect of many other census questions, such as those relating to whether individuals were looking for work, how many hours they worked, their usual place of residence one and five years ago, their school attendance, qualifications and income.

An added complication is introduced by variations between State offices of ABS in the manner of their interpretation of census questions. For example, as far as can be determined, interviewers in the Northern Territory were trained to code part-time CDEP participants as 'in employment last week', whereas elsewhere the question appears to have been interpreted literally. Certainly, the 1991 Census data on Aboriginal labour force status in the Northern Territory seem to reflect this procedure, as the numbers recorded of those in employment in Aboriginal townships increased by 48.7 per cent over the five years since 1986 and at outstations by 71.1 per cent. It is interesting to note that employment growth in urban areas over the same period was relatively sluggish at only 8.9 per cent, although even much of this may be accounted for by an expansion of the CDEP scheme into Alice Springs.

Clearly any data set which is derived from a variety of sources, sometimes reflecting different interpretations of the same questions and in respect of a fluid population such as that at outstations, presents a number of complexities which require potential users to exercise caution. At the very least, some idea of the spatial levels at which disaggregation of data is appropriate should be established. For example, what reliability can be attached to data comparing the demographic and economic status of one group of outstations (in a CD) with another, without knowing precisely how the data were collected? The same would apply when comparing the population of a group of outstations with that in an associated Aboriginal town, for example, the population of Maningrida compared to that of its outstations. For certain characteristics, such as income levels which are determined largely by welfare entitlements, it may be possible to establish lower limits of reliability from administrative data. At the same time, it would seem reasonable to expect that any impacts on data quality that may have been brought about by variations in enumeration procedures at the local community level would be less problematic at regional levels. Thus, comparisons of outstation populations in the Top End of the Northern Territory with those in Central Australia, for example, would seem to be on a more secure foundation as would aggregate comparisons of, say, urban versus outstation characteristics.

One final point concerns the issue of Aboriginality. In an effort to maximise the count of Aboriginal people, the 'Aboriginal' response box in the origin question on the remote area personal census form was pre-ticked. In cases where Torres Strait Islander or non-Aboriginal origin was assumed, interviewers were instructed to elicit a response and override this pre-marked answer with an additional tick in the appropriate box. These double entries were later edited at the data processing stage. Clearly, in regard to Torres Strait Islanders, this introduces two potential sources of error into the census count, and whether this had any bearing on the quality of data remains unknown.

What this pre-coding does avoid, however, is the high rate of non-response to the Aboriginal origin question noted among those subject to standard enumeration procedures, particularly in the Northern Territory (ABS 1989: 7). But this raises a potential issue regarding the consistency of census-based comparisons between urban and rural populations. ABS assessments of Aboriginal data quality indicate a high degree of inconsistency in Aboriginal self-identification between the post-enumeration survey (PES) and the census (ABS 1989: 6). Thus, changes in Aboriginal population counts for urban areas are far more likely to be compounded by shifts in identification, compared to counts in rural areas where the adequacy of census coverage is the sole controlling factor. At the same time, dependence on census field operations for the success of the remote area count introduces unique potential for errors of omission and/or commission.

1991 Census small area geography

It has been appreciated for some time that one of the problems of reliance on the census for information relating to remote areas is the fact that many Aboriginal localities have populations smaller than the minimum geographic level at which data are available (CD level). Furthermore, the configuration of CD boundaries to date has tended to cut across the social geography of functioning regions. The clearest case in the NT is provided by Aboriginal towns and their associated outstations within which most remote area populations interact and most of their service delivery systems operate.

The case for a more regionally-oriented system of gathering and presenting Aboriginal socioeconomic data has been argued elsewhere. Altman (1987), for example, has suggested that outstations should not be conceptualised as individual communities but as part of an extended social network that usually includes at least one Aboriginal township. A similar relationship has been noted by Young and Doohan (1989) in regard to Aboriginal-owned cattle stations and kinfolk who may live on small excisions on neighbouring non-Aboriginal properties. Young and Doohan (1989) further note that all too often there is a disjunction between the patterns of spatial interaction on the ground and the geography of statistical boundaries that seek to represent these realities as a means of informing policy and providing for efficient administration and service delivery. It is further suggested that one means of overcoming this is to delineate Aboriginal statistical regions based on the activity spaces of remote area populations.

While this may be easier said than done, the first steps in this direction were apparent in the redrawing of CD boundaries in the NT for the 1991

Census. Basically, the approach was to redesign CD boundaries without alteration to existing Statistical Local Area (intermediate level) boundaries, while at the same time creating statistical units that more closely circumscribe outstation populations serviced from, and associated with, particular Aboriginal towns. Thus, assuming that the redesigned CD boundaries accurately delimit outstations associated with particular townships, it should now be possible to at least approximate the outstation populations associated with the townships of Waruwi, Gunbalunya, Maningrida, Bulman, Galiwinku, Gapuwiyak, Yirrkala, Daly River and Numbulwar.⁴ Outstations associated with townships such as Ramingining and Milingimbi are too close to each other to allow separation into individual CDs. In the southern part of the Northern Territory, outstations associated with the township of Kintore are now more readily identifiable, while Yuendumu township becomes statistically separate from its outstations with the creation of two new CDs. While this new configuration should provide for more community-based planning frameworks, the usefulness of drawing distinctions between populations at the CD level may be drawn into question given the nature of remote area enumeration.

Conclusion

Clearly, census enumeration in remote areas is a difficult task. Compounding the problems presented by large distances, the population in such areas is compelled by economic necessity to be highly mobile and resident in 'areas' as much as 'places'. Added to this is the lack of a definitive listing of localities and, even if this existed, the geographic and social allocation of households and their individual members presents its own definitional problems (Smith 1992). This no doubt provides a partial explanation for the mixing of *de facto* and *de jure* census enumeration in remote areas and begs the question: which is the more appropriate in the context of high intra-regional mobility?

Leaving aside the census count, variations in the actual recording of data create room for doubts, not so much over the veracity of some information, but rather what it portrays. This conundrum would be resolved to some extent if documentation were available detailing the mode of enumeration. At the very least, researchers need to be aware of the difficulties encountered in remote area enumeration and of interpreting results in this context. At the same time, one might question whether certain census questions are appropriate to the task of describing social and economic realities in remote areas. For example, given the relative importance of informal economic activities at outstations (Altman and Taylor 1989; Altman and Allen 1992) what exactly is the census measuring in terms of employment and income? Of critical significance

to broad economic policy formulation is whether economic status in remote areas can be assessed using the same criteria as that applied in the wider society.

The drive towards greater Aboriginal community involvement in the compilation of census information in remote areas appears to be establishing precedents with potentially far-reaching consequences. For example, the target population for phase one of the ATSIC Housing and Community Infrastructure and Needs Survey was defined as all urban centres and rural localities with less than 1,000 Aboriginal and Torres Strait Islander residents. In such places, demographic data on household composition were gathered by using key informants (Taylor 1992). Already, this conflicts with more normative approaches deemed appropriate in larger urban concentrations and raises the spectre of allocating funds to meet needs derived from different statistical premises - a sort of 'horses for courses' mentality. Clearly, one of the emergent challenges in the clamour for increased generation of policy-relevant Aboriginal statistics is going to be the maintenance of data quality and comparability.

While the ABS has legislative responsibilities in regard to the compilation and sanctioning of official Aboriginal statistics, it is clear that some Aboriginal organisations envisage a counter role as purveyors of their own information. For example, the ATSIC Regional Council of Sydney considers official population data for their region to be grossly inadequate due to inappropriate census enumeration procedures. As a consequence, they are seeking funds to conduct their own census aimed at providing more reliable data (Sydney Regional Council 1991: 12). At a broader level, questions are also being raised regarding the rightful ownership of Aboriginal data and the need for bodies, such as the ABS, to negotiate with appropriate Aboriginal organisations for data access (Jonas 1992). This raises an issue of relevance to the national survey of indigenous Australians planned for 1994: having established a precedent for direct community involvement in the procurement of data in remote areas, should the survey seek to replicate this procedure in order to ensure comparability with the census methodology and, if so, does this imply that the methodology should be extended to urban groups in order to maintain the internal consistency of the survey?

Notes

1. The terms 'Aboriginal' and 'Aborigines' refer to both the Aboriginal and Torres Strait Islander populations throughout.
2. The census records the usual place of residence of individuals both one year and five years prior to the census date. Where either of these differ from the usual place of

residence at the time of enumeration and are in different SLAs, a population movement is deemed to have occurred. In areas, such as remote parts of the NT, where SLAs are geographically extensive, most population movements occur within SLA boundaries and are therefore unrecorded by the census. For a further discussion of this see (ABS 1990: 15-17).

3. The remote area strategy was first applied in the Northern Territory, Western Australia and South Australia in 1981 and in Queensland in 1991.
4. Ambiguities exist regarding the appropriate affiliation between particular Aboriginal townships and outstations. For example, outstations on the western and eastern margins of the Maningrida service region in north-central Arnhem Land are also serviced from Gunbalunya and Ramingining, respectively (Altman 1982: 433). In addition, different agencies, such as health, education, outstation resource centres and community stores often preside over separate jurisdictions.

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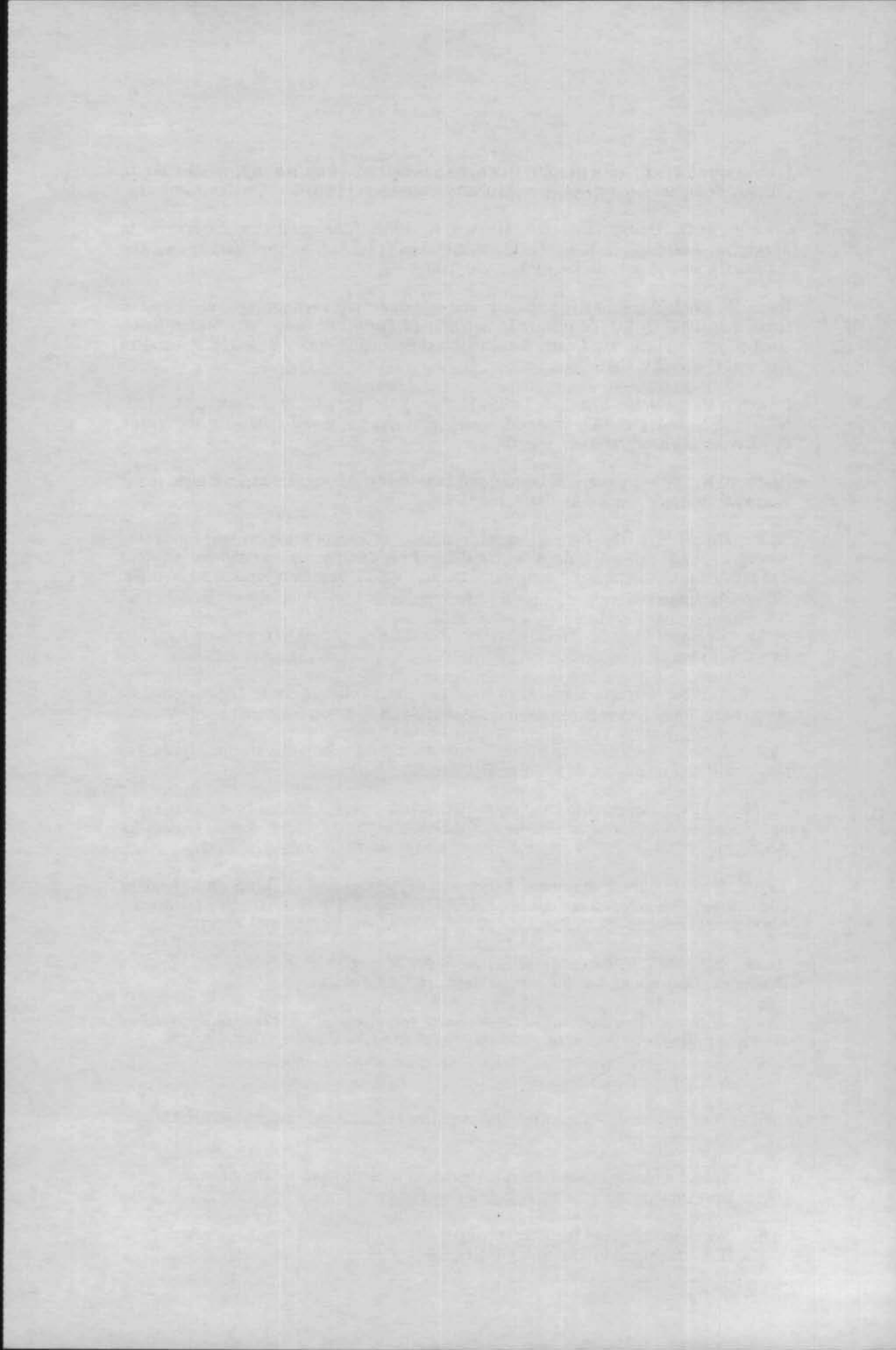
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